

REMARKS/ARGUMENTS

The Office Action of February 12, 2003 has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. The Applicants respectfully request reconsideration of the Application in view of the following Remarks. In that Examiner's action, claims 1-16, 18, 19, and 21-39 were rejected under 35 U.S.C. § 102(a) and/or 103(a), claims 30-26 were objected to, and claims 17 and 20 allowed. By this response, the Applicants have traversed the rejection. Claims 1-39 remain in this application. No claims have been added, canceled, or withdrawn.

No new matter has been introduced into the application. The claims are believed to be in allowable condition. The Applicants respectfully request reconsideration of the application, withdrawal of the rejections of the claims and allowance of all pending claims.

Objected to Claims

Claims 30-36 were objected to because of certain informalities. The Applicants have amended Claim 30 to correct the informality identified in the Office Action.

Rejection Under 35 U.S.C. § 102(e)

Claims 1-16, 19, and 29-35 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,108,579 ("Snell"). The Applicants traverse the rejection in view of the above amendments and the following Remarks.

Snell discloses a method and apparatus for predicting and displaying a realistic time remaining to recommended replacement time of a battery in an implantable cardiac stimulating device. (Abstract). The programmer retrieves information from the implantable cardiac device such as battery parameters, therapeutic pulse width, amplitude, the programmed delivery rate of therapeutic shocks, and lead impedance. (Col. 10, lines 1-7). The programmer then determines the charge depleted. The programmer then simulates battery drain based on "ohmic resistance of the implanted cardiac device 10, battery voltage, the pulse width of therapeutic shocks, the therapeutic pulse amplitude, the preprogrammed rate of therapy delivery, and lead impedance in a known manner." (Col. 10, lines 12-17). In particular, the programmer continually simulates

episodes of cardiac stimulation until the battery voltage corresponds to voltage for RRT. Once the battery voltage corresponds to the voltage for RRT, the time to RRT may be determined by multiplying the number of simulated episodes with the simulated time frame for each episode.

The present invention, on the other hand, discloses a method and apparatus that estimates the remaining life of the battery based on actual usage information. As discussed in prior responses, the present invention discloses at least two methods by which the remaining life is estimated. In one embodiment, the remaining capacity is multiplied by the ratio of actual used capacity to the actual time the IPG has been working. In another embodiment, the remaining capacity is multiplied by the ratio of actual used capacity since the IPG was last reprogrammed to the actual time the IGP has been working since the IPG was last reprogrammed.

Snell fails to disclose, teach or suggest a system that takes into account actual power usage information by the user to thereby determine an average usage rate from which to extrapolate when the battery will become depleted. Rather, Snell uses, *inter alia*, “the preprogrammed rate of therapy delivery” to determine remaining battery life. Snell, therefore does not take into account any changes to therapy rates that may have actually occurred. In contrast, the Applicants’ invention discloses a more accurate technique for determining power source life that is based on actual power usage history.

For example, with respect to independent claim 1, Snell fails to disclose, teach, or suggest as least the steps of “obtaining a used capacity of the power source and a time that the power source has been operating, wherein the used capacity and the time are actual measurements; and determining the remaining life of the power source based on the used capacity of the power source and the time that the power source has been operating.” Each of the other independent claims recites similar limitations. The dependent claims, which depend from and further limit the amended independent claims, are patentably distinct over Snell for at least the same reasons. The Applicants therefore respectfully request withdrawal of this ground for rejection of claims 1-16, 19, and 29-35.

Rejection Under 35 U.S.C. § 103(a)

Claims 18, 21-28, and 36-39 under 35 U.S.C. § 103(a) as being unpatentable over Snell in view of various references. In view of the foregoing Amendments and Remarks, the Applicants respectfully submit that these claims are patentably distinct for at least the same reasons. The Applicants therefore respectfully request withdrawal of this ground for rejection of claims 18, 21-28, and 36-39.

REQUEST FOR EXAMINER'S INTERVIEW

Pursuant to MPEP Rule 713, the Applicants hereby request a telephonic examiner's interview with the Examiner to discuss the substance of the Office Action and this Amendment and Response. The Applicants believe that a brief telephonic interview may clarify the issues in this case.

CONCLUSION

It is believed that no fee is required for this submission. If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicant respectfully submits that the instant application is in condition for allowance, and respectfully solicits prompt notification of the same. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the number set forth below.

Respectfully submitted,

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